



United States Patent [19]

Friesen et al.

[11] Patent Number:

4,861,711

[45] Date of Patent:

Aug. 29, 1989

[54]	SHEET-LIKE DIAGNOSTIC DEVICE			
[75]	Inventors:	Heinz-Jürgen Friesen; Gerd Grenner, both of Marburg; Hans-Erwin Pauly, Dautphetal; Helmut Kohl; Klaus		

Dautphetal; Helmut Kohl; Klaus Habenstein, both of Wetter; Joseph Stärk, Ebsdorfergrund, all of Fed.

Rep. of Germany

[73] Assignee: Behringwerke Aktiengesellschaft,

Marburg/Lahn, Fed. Rep. of

Germany

[21] Appl. No.: 808,563

[22] Filed: Dec. 13, 1985

[30] Foreign Application Priority Data

Dec. 15, 1984 [DE] Fed. Rep. of Germany 3445816

435/805, 810; 422/56, 169, 61, 101

[56] References Cited

U.S. PATENT DOCUMENTS

/1974 V	erbeck .	
1/1982 D	uetsch et al	
2/1982 T	om	435/7
5/1984- L	iotta	436/514 X
7/1984 B	erke	436/810 X
9/1984 M	lasuda	436/81U X
5/1986 Z	uk	436/810 X
2/1986 K	ondo	436/810 X
	1/1982 D 2/1982 T 5/1984 L 7/1984 B 9/1984 M 5/1986 Z	

FOREIGN PATENT DOCUMENTS

0046004 2/1982 European Pat. Off. . 0100619 2/1984 European Pat. Off. .

OTHER PUBLICATIONS

European Patent Application of Fuji Photo Film Co., Ltd., Publication No. A2 0 097 952, dated Jan. 11, 1984. West German Offenlegungsschrift No. 33 29 628, dated Feb. 23, 1984.

West German Offenlegungsschrift No. 30 43 608, dated Jun. 24, 1982.

West German Patentschrift No. 23 32 760, issued Mar. 4, 1982.

Primary Examiner—Christine M. Nucker Attorney, Agent, or Firm—Finnegan, Henderson, Farabow, Garrett, & Dunner

57) ABSTRACT

A solid diagnostic device for the quantitative determination of substances of biological affinity in biological fluids is described. A process is also described in which the biological fluid is brought into contact with a specific functional sector of the device, the fluid migrates through several functional sectors situated beside one another and containing suitable reagent components, and one or more substances of biological affinity are detected in such functional sectors which contain, for each substance to be detected, at least one combination partner of biological affinity, attached to a solid phase.

34 Claims, 2 Drawing Sheets